# Measuring Pollution Prevention Progress in Indiana

## Pollution Prevention Assistance Survey Results



OPPTA staff provide many types of assistance, most of which falls under the Compliance and Technical Assistance Program as confidential assistance.

Outreach efforts under CTAP include conducting educational workshops, providing confidential site visits and confidential assistance via telephone, and developing recognition programs, compliance and pollution prevention assistance manuals, and fact sheets. Although much of this work is focused on compliance assistance, pollution prevention assistance is also addressed in most instances. For the past several years, CTAP has been tracking the assistance it provides, and the results, as related to pollution prevention, are provided here. The complete CTAP 2003 report can be viewed on IDEM's Web site at www.IN.gov/idem/ctap/03annualreport.pdf.

#### ■ Small Business Assistance Contacts

Table F shows significant progress in reaching and assisting Indiana units of government, businesses and citizens. Since 1996, assistance efforts (see Total Contacts below) have increased every year except in 2002, when the state's fiscal situation negatively impacted CTAP. Current projections indicate that this upward trend will return in 2003. The downward trend in mailings and publications continues from 2002 due to CTAP's focus on electronic publication and outreach as part of IDEM efficiency measures. Despite the decrease in mailings and publications, the number of active contacts, including telephone calls, site visits and "hits" to the CTAP home page (www.IN.gov/ idem/ctap/) are all on pace to increase, by 19 percent, six percent, and 16 percent, respectively when compared to 2002 totals.

In 2002 and 2003, budget cuts and staff vacancies in OPPTA impacted CTAP's outreach efforts. However, CTAP continues to work with the Indiana Department of Commerce on a controlled marketing plan of the program. In addition to this collaborative relationship,

Table F

OPPTA Small Business Assistance Contacts								
Contact Type Telephone Assistance Onsite Visits Seminars/Workshops Publications** Home Page Hits Teleconferences Mailings Total Contacts Staff Members (full-time employees)	1996 2,254 411 80 2,133 1,318 0 1,050 7,246	1997 3,200 138 565 3,364 600 0 225 8,092 12	1998 2,770 155 764 6,724 1,574 67 6,935 18,989	1999 2,785 245 1,491 4,290 3,691 0 10,730 23,232 14	2000 2,972 296 2,485 10,985 6,313 0 13,908 36,758 12	2001 2,990 521 2,956 12,500 8,365 0 13,000 40,332 11	2002 3,122 913 2,002 8,000 10,566 0 8,800 33,403 8	2003* 1,853 482 3,300 3,200 6,106 0 3.000 17,941 8

<sup>\*\*</sup>Includes guidance manuals, fact sheets, brochures and annual reports.

<sup>\*</sup> Covers only the first half of 2003 (January - June)

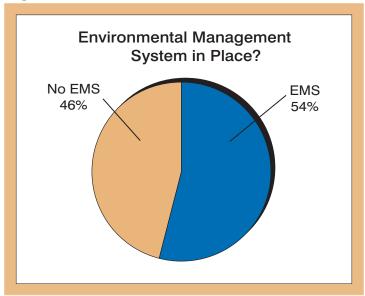
CTAP is working with the Indiana Department of Labor's Bureau of Safety Education and Training to distribute information on both agencies' programs.

#### Measuring Results

In January 2001, CTAP offered an online customer satisfaction survey (www.IN.gov/idem/oppta/survey. html). The survey takes fewer than five minutes to complete and provides CTAP with valuable information about the level of customer service provided. The following sections focus on data compiled from these surveys through July 1, 2003. Among the questions asked was, "Do you have an environmental management system in place?"

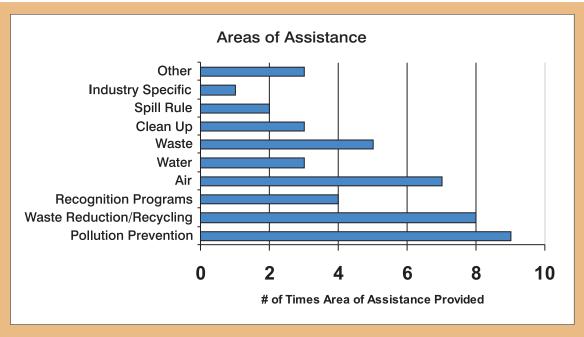
Figure 5 shows that 54 percent of survey respondents do have an environmental management system in place. Reasons for implementing an EMS ranged from "good business practice" to "required by corporate/head office." CTAP staff has assisted eight Indiana businesses that implemented an EMS based on International Organization for Standardization principles.

Figure 5



"Areas of Assistance" is tracked through the CTAP database. Figure 6 depicts the results from the surveys submitted through July 1, 2003. An assistance effort will typically include more than one area of focus. For example, a customer may have originally contacted CTAP for assistance in complying with hazardous waste

Figure 6



rules; however, during the assistance effort, the CTAP staff person provided the customer with pollution prevention information to reduce the amount of hazardous waste generated. Based on the surveys submitted, pollution prevention and waste reduction were the most often provided area of assistance.

Another question asked was, "What information did OPPTA or CTAP send you?" Figure 7 shows that guidance documents from various programs were requested the most. Pollution prevention information ranked as the second most provided piece of information. This information is typically related to sector-specific improvements such as better management practices or product substitution information.

#### CTAP Site Visit Surveys

At the beginning of 2003, CTAP implemented a new system to better understand the service provided to

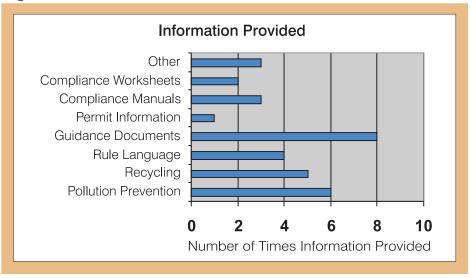
its customers. Surveys are distributed to representatives of Indiana businesses that have been provided a site visit for pollution prevention and/or compliance assistance. The site visit survey is available on IDEM's Web site at www.IN.gov/idem/ctap/survey/.

CTAP staff developed an automated system to facilitate the collection of these surveys. Six months after any on-site visit, CTAP sends a survey to facilities that received a visit. The six-month timeframe was chosen because most suggestions for pollution prevention or compliance can be implemented, and results obtained, within that timeframe. Six months also serves as a good reminder timeframe for the facility to follow-up with CTAP if additional services are needed.

The site visit survey has two sections. The first section is used for compliance assistance site visits. Information requested in this section includes which areas of compliance were reviewed, what types of issues were identified, whether the issues were corrected, how the issues were corrected, and what environmental impact occurred because of actions taken.

The second part is used for pollution prevention assistance site visits. Information requested includes which pollution prevention activities were implemented, what capital costs were incurred, what cost savings resulted from implementation, and what environmental benefits were realized. The following graphs show the results from the 12 surveys completed from January 2003 to July 2003 as related to pollution prevention.

Figure 7

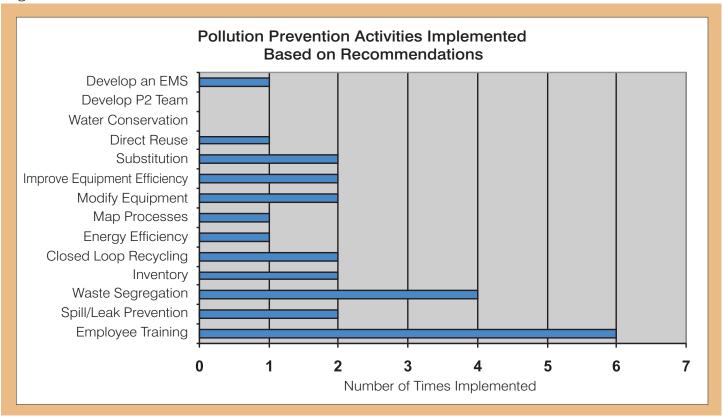


Another question asked was, "What pollution prevention activities or operational changes, if any, were implemented at the facility based on suggestions from CTAP staff?" Figure 8 on page 24 shows the different pollution prevention activities an entity may have been suggested to implement. During the first data collection period of 2003, OPPTA realized a survey return rate of 17 percent. Out of those that responded to the survey, each facility implemented two pollution prevention activities. Employee training and waste segregation were the recommendations most implemented.

### Environmental Benefits of the CTAP Program

The survey also asked, "What environmental benefits were derived from implementation of the project?" Forty-two percent of respondents listed compliance with environmental regulations as an environmental benefit from implementing the pollution prevention project. Seventeen percent of respondents found that implementing pollution prevention lead to decreased volatile organic compound emissions, increased solid waste recycling, decreased water consumption and decreased energy consumption.

Figure 8



#### Toxic Release Inventory Results

Each year, more than 1,000 Indiana facilities submit toxic release data to OPPTA's Pollution Prevention Branch under the requirement of the Toxic Release Inventory. The Pollution Prevention Branch maintains continual quality assurance over the data and each year provides an update on the state's toxic chemical release trends. A Web-based TRI database is also available at www.IN.gov/idem/oppta/tri/search.html for the public to view toxic releases throughout the state. Because facilities report releases of the previous year, the most current data available at this time is for 2001 releases. A complete report on the 2001 Toxic Release Inventory in Indiana is available on IDEM's Web site at www.IN.gov/idem/oppta/tri/2001trends.pdf.

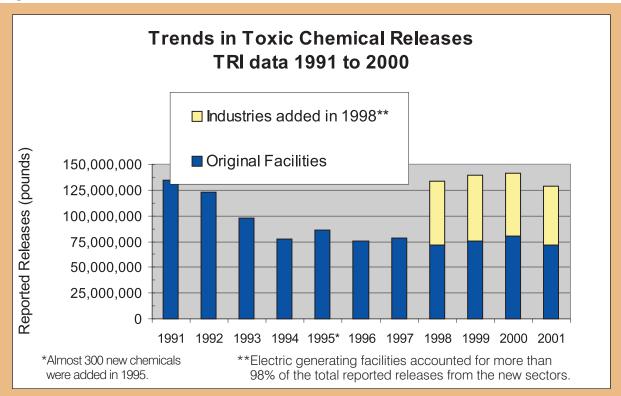
#### Overview and Trends in Toxic Chemical Releases

In 2001, Indiana's statewide total toxic chemical releases decreased from 141.6 million to 128.7 million pounds (see Figure 9 on page 25). This 12.9 million pound decrease was possibly due to a contraction in the state's economy. The 9.1 percent decrease in releases closely correlates with the U.S. Depart-

ment of Commerce Bureau of Economics statistics, which indicate the manufacturing portion of the Indiana gross state product as down 9.2 percent in 2001 as compared to 2000. Although many of the reductions in releases were likely due to the economy, as described earlier in this report, there were significant reductions due to pollution prevention efforts made by industries around the state. This includes the large styrene reductions made by the fiber-reinforced plastics industry and the continual nine-year decrease in releases of dichloromethane (methylene chloride).

The reductions of both styrene and dichloromethane are due in large part to IDEM pollution prevention outreach over the past several years. IDEM identified styrene and dichloromethane as toxic chemicals that needed further reduction outreach due to their known or potential carcinogenic status. In 2001, a state rule was developed using pollution prevention technologies to significantly reduce styrene emissions from open molding reinforced plastic parts manufacturers. This rule went into effect March 2001 and has helped reduce reported styrene emissions from 5.7 million pounds in 2000 to 4.8 million pounds in 2001 (see Figure 10 on page 25). As referenced earlier in this report, it is believed the actual reduction of styrene releases in Indiana is actually almost 4 million pounds since 1996.

Figure 9



IDEM began outreach to the flexible polyurethane foam manufacturers in 1997 in an effort to reduce their use of dichloromethane. In 2001, a federal rule for this industry began and further reduced emissions from a high of almost 10 million pounds in 1992 to less than 2.7 million pounds in 2001. The graph below shows the reduction trends of these two chemicals. The initiatives included rule making, pollution prevention and compliance assistance outreach, and increased inspection efforts.

Environmental waste generated by Indiana facilities decreased by 7.8 million pounds, or less than 1 percent, from 2000 (1.026 billion pounds) to 2001 (1.018 billion pounds). Waste management activities reported to TRI include recycling, burning for energy recovery, and destruction of the toxic chemical through treatment and disposal in landfills.

For additional information on toxic releases in Indiana, please refer to the Governor's Toxic Reduction Challenge information on pages 5-7 or to the TRI Web site at www.IN.gov/idem/oppta/tri/.

Figure 10

